

# Optimising adherence in atrial fibrillation

Dr. Isabelle Arnet

Pharmaceutical Care Research Group

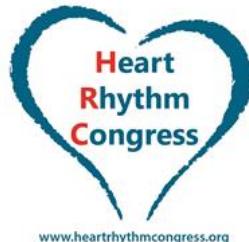
Klingelbergstrasse 50

4056 Basel (Switzerland)

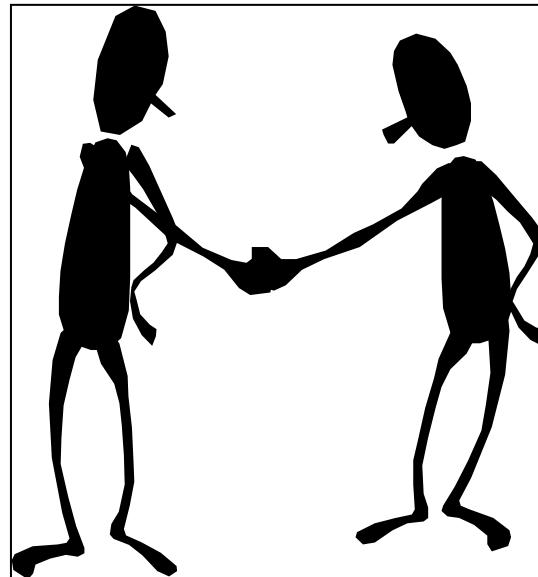
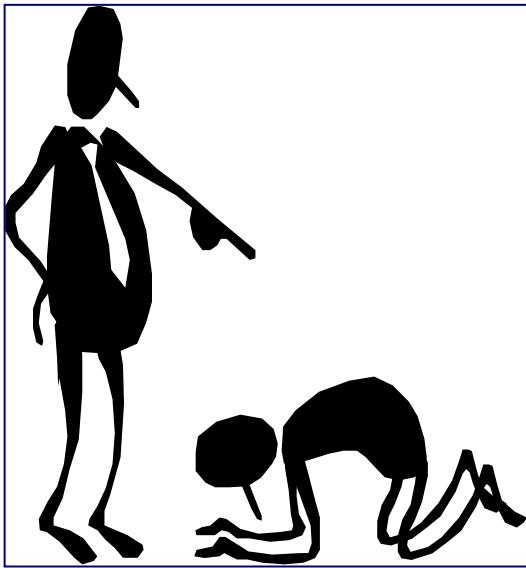
[isabelle.arnet@unibas.ch](mailto:isabelle.arnet@unibas.ch)



Birmingham, 10th October 2016



- compliance = adherence



- persistence



- 10 forms of nonadherence

primary nonadherence

**C**

drug holiday

**O** O O    O O    O O

tooth brush effect

**M**              M M M M **visit**

wrong medicine

**P** Q Q Q Q Q Q Q Q

overdosing

**L**L L L L L L L L L L L L L L L L

underdosing

**I**    I    I    I    I    I

erratic dosing

**A** A    AA    AAAA    A

wrong frequency

**N**N    NN    NN    NN    NN

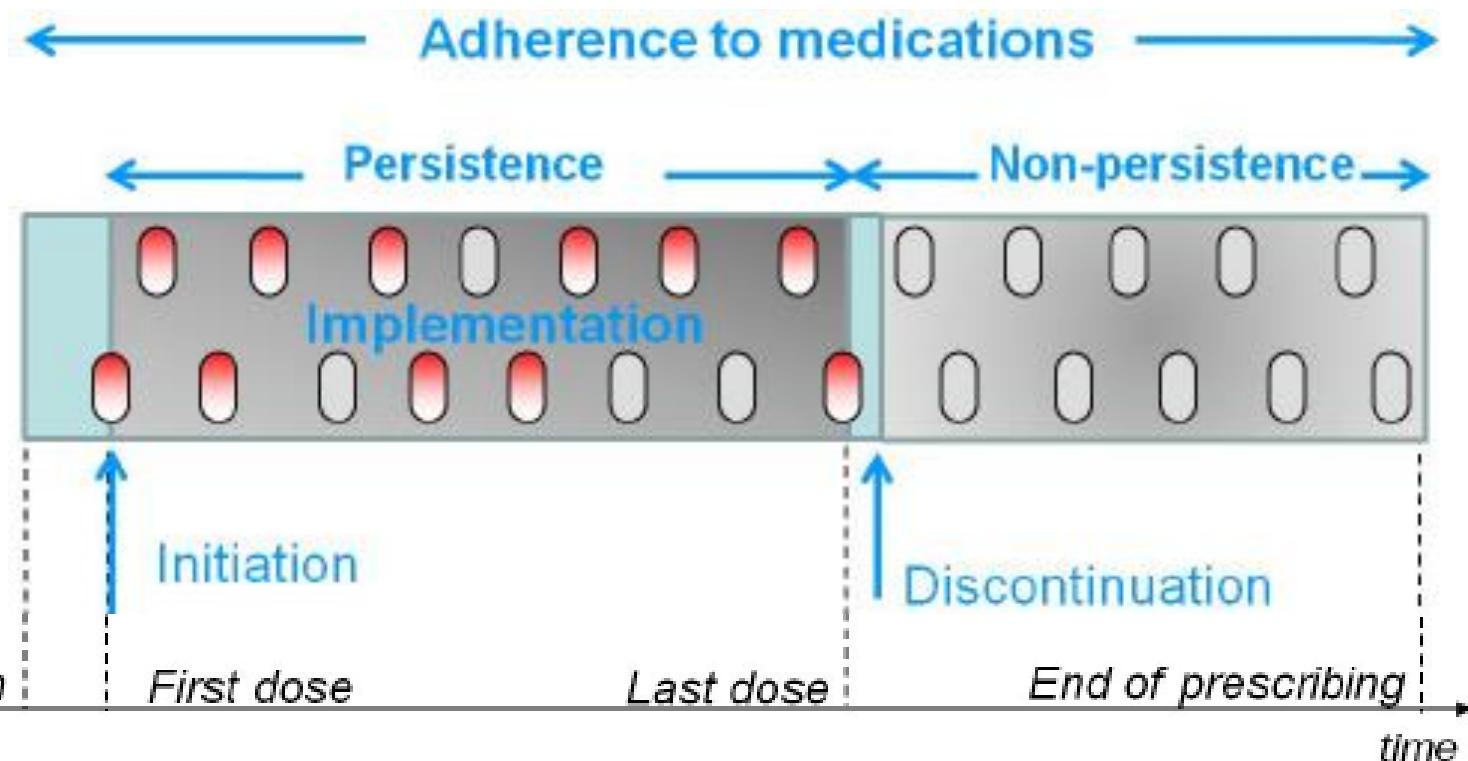
wrong length

**C** C C C C

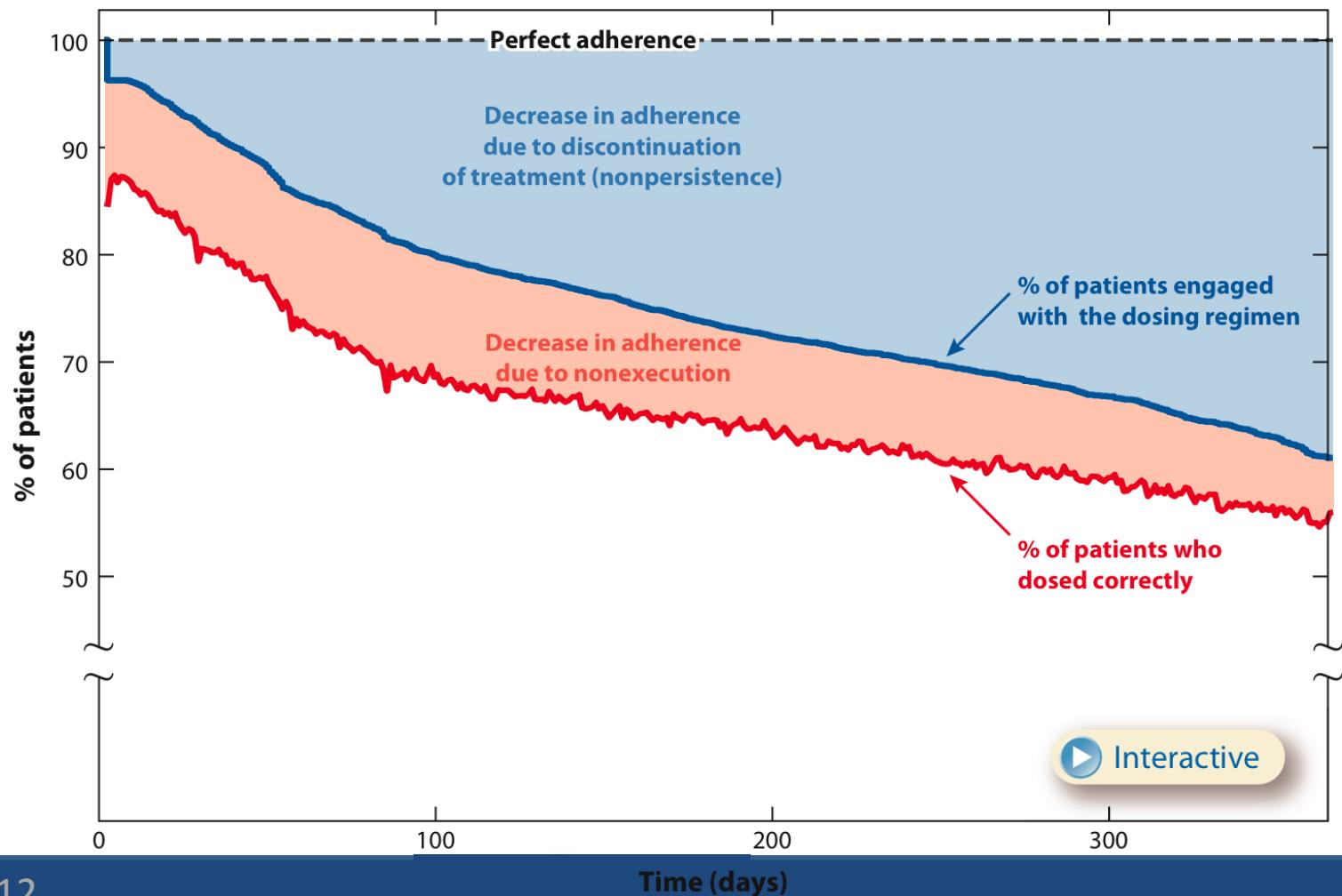
polypharmacy

**E** E Z E E Y E Y Z E E

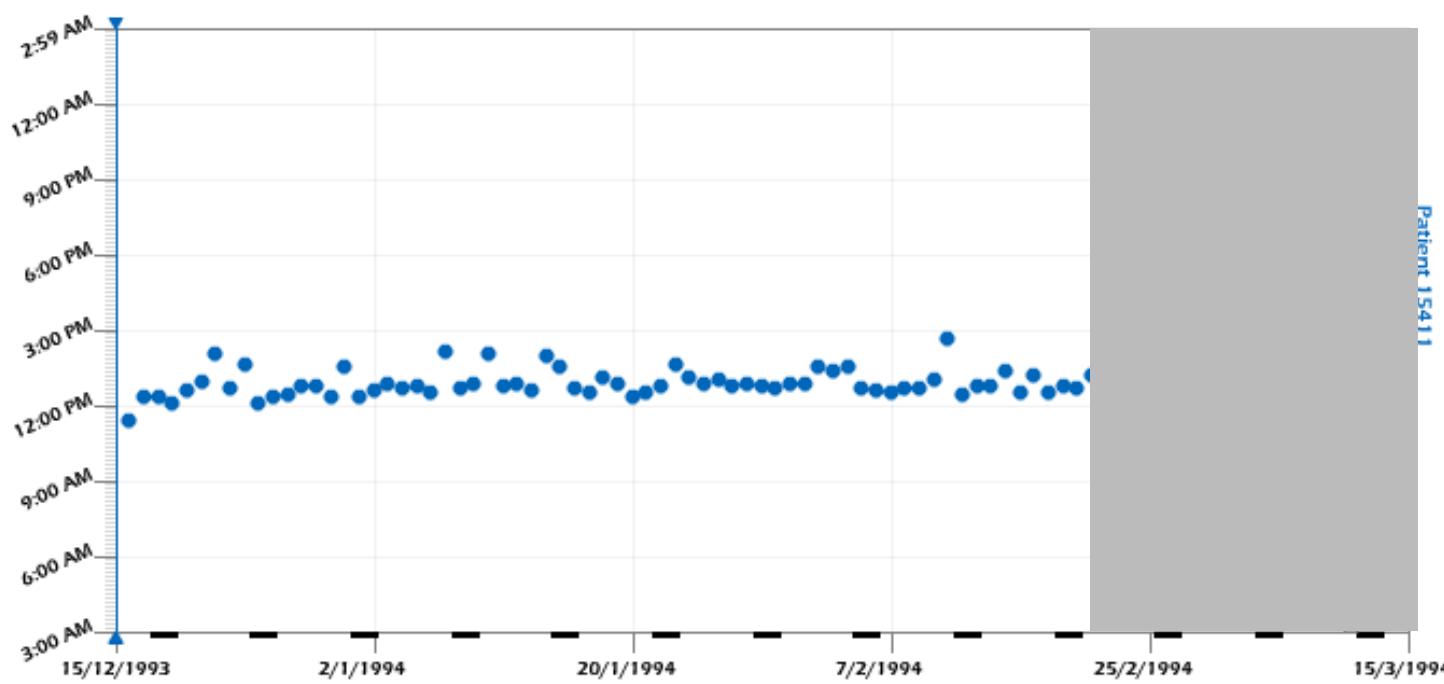
- new taxonomy



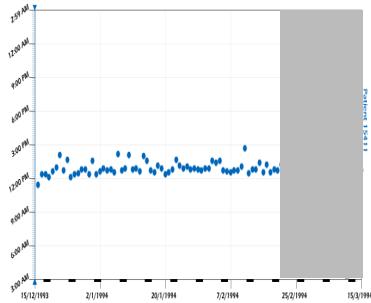
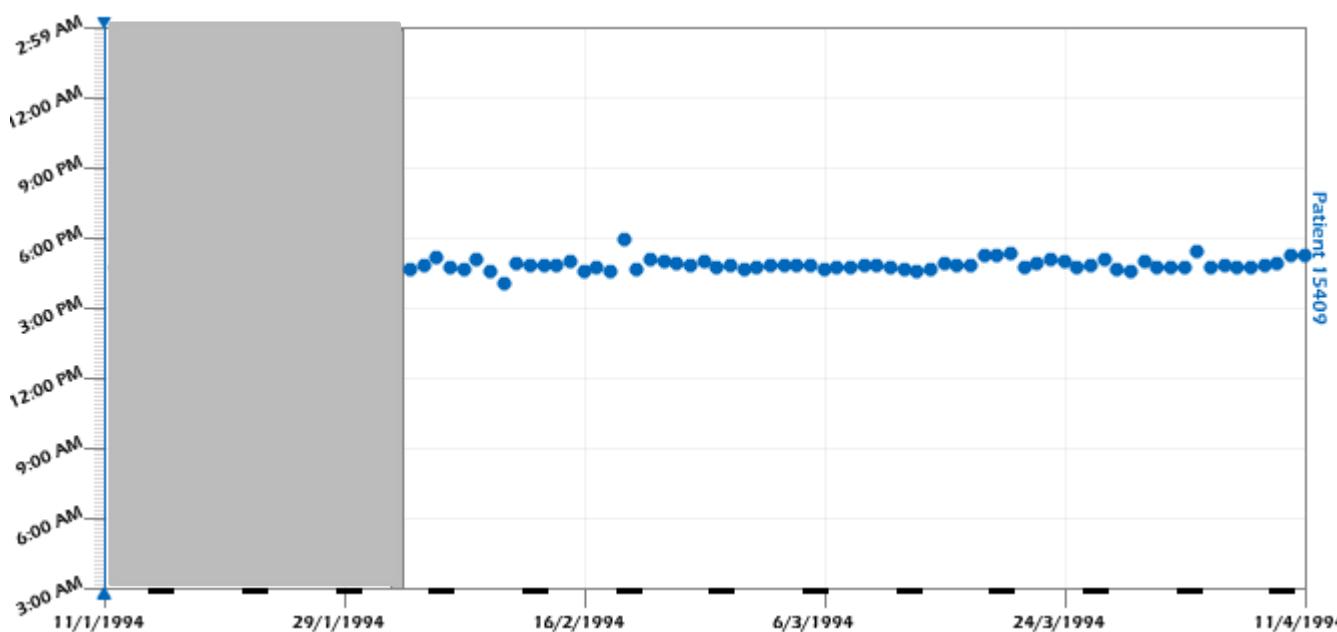
# Time-course of adherence parameters of 16'907 patients prescribed oral medications



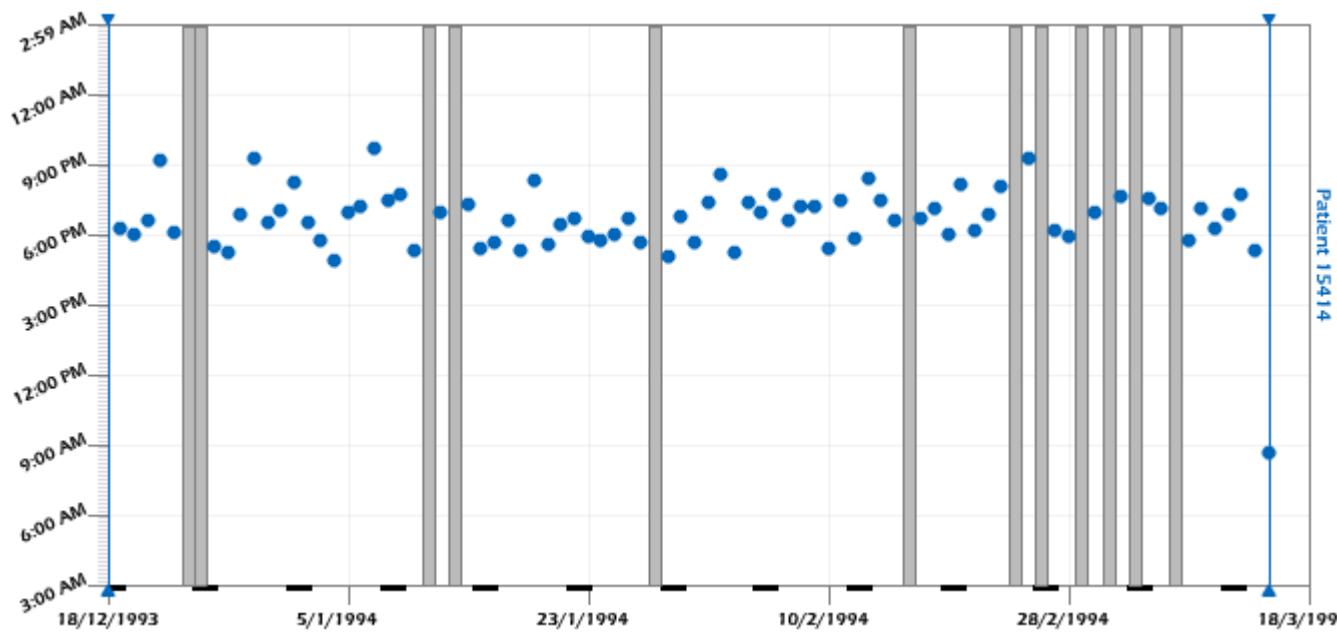
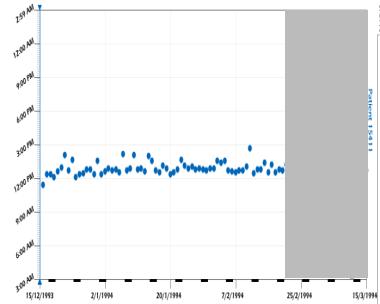
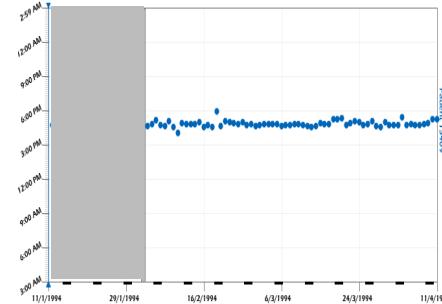
- 80%



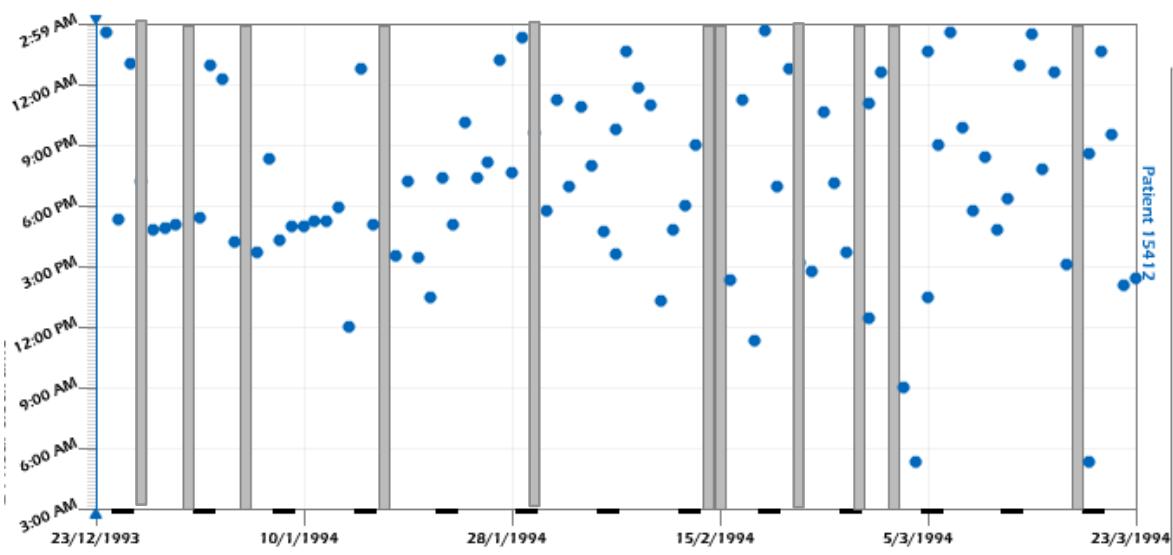
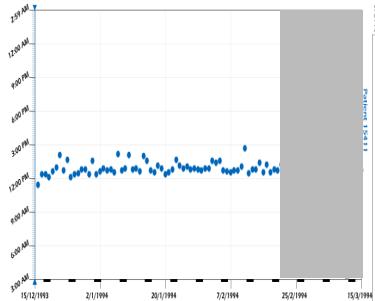
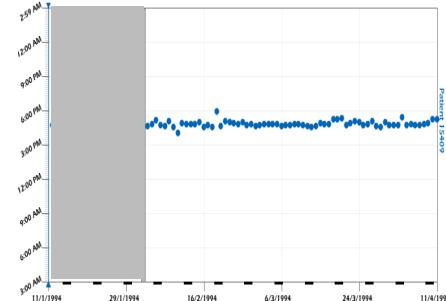
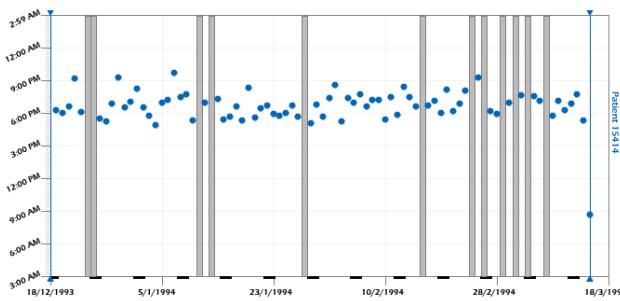
- 80%

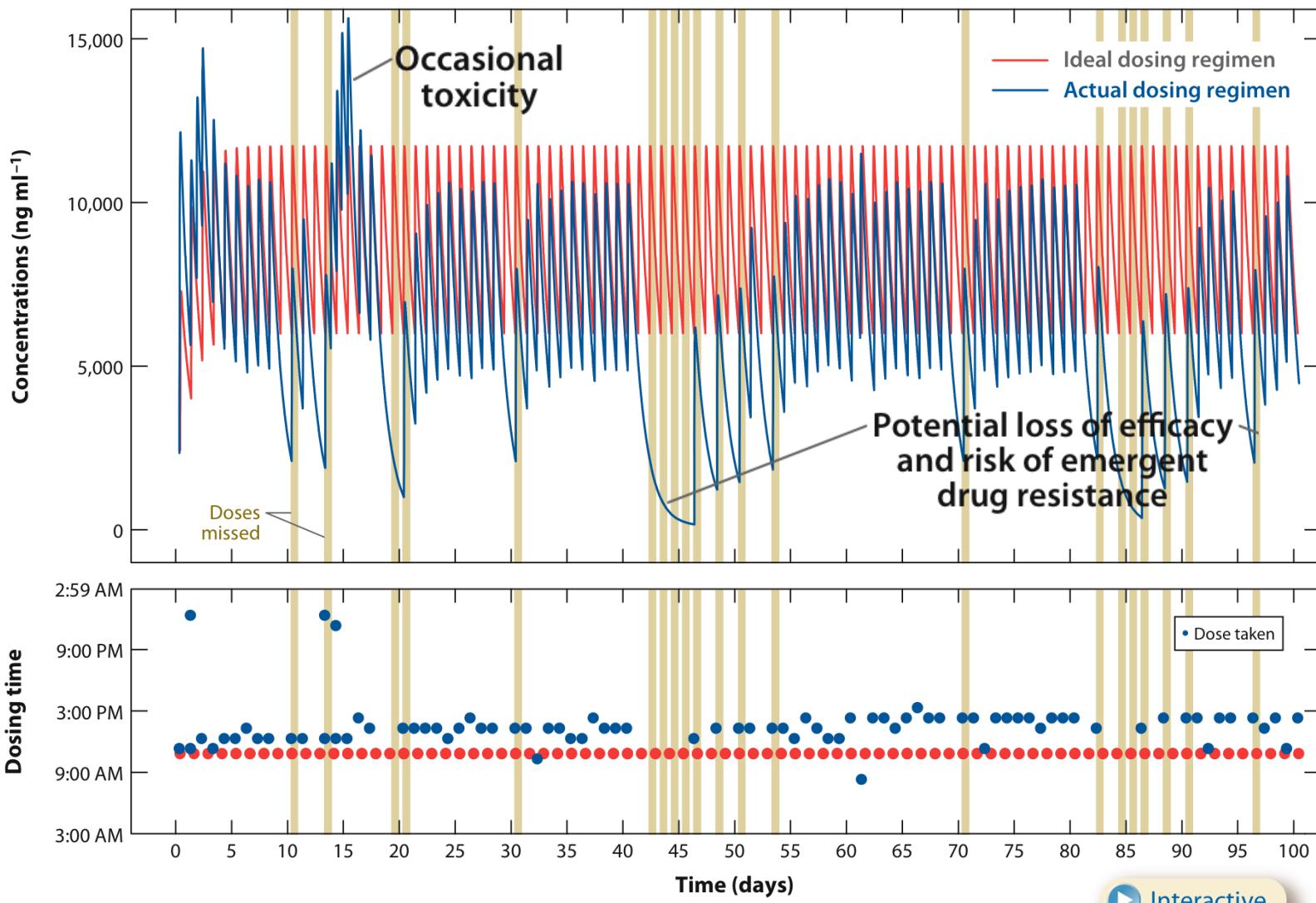


- 80%



- 80%





Blaschke 2012

*Annu Rev Pharmacol Toxicol*

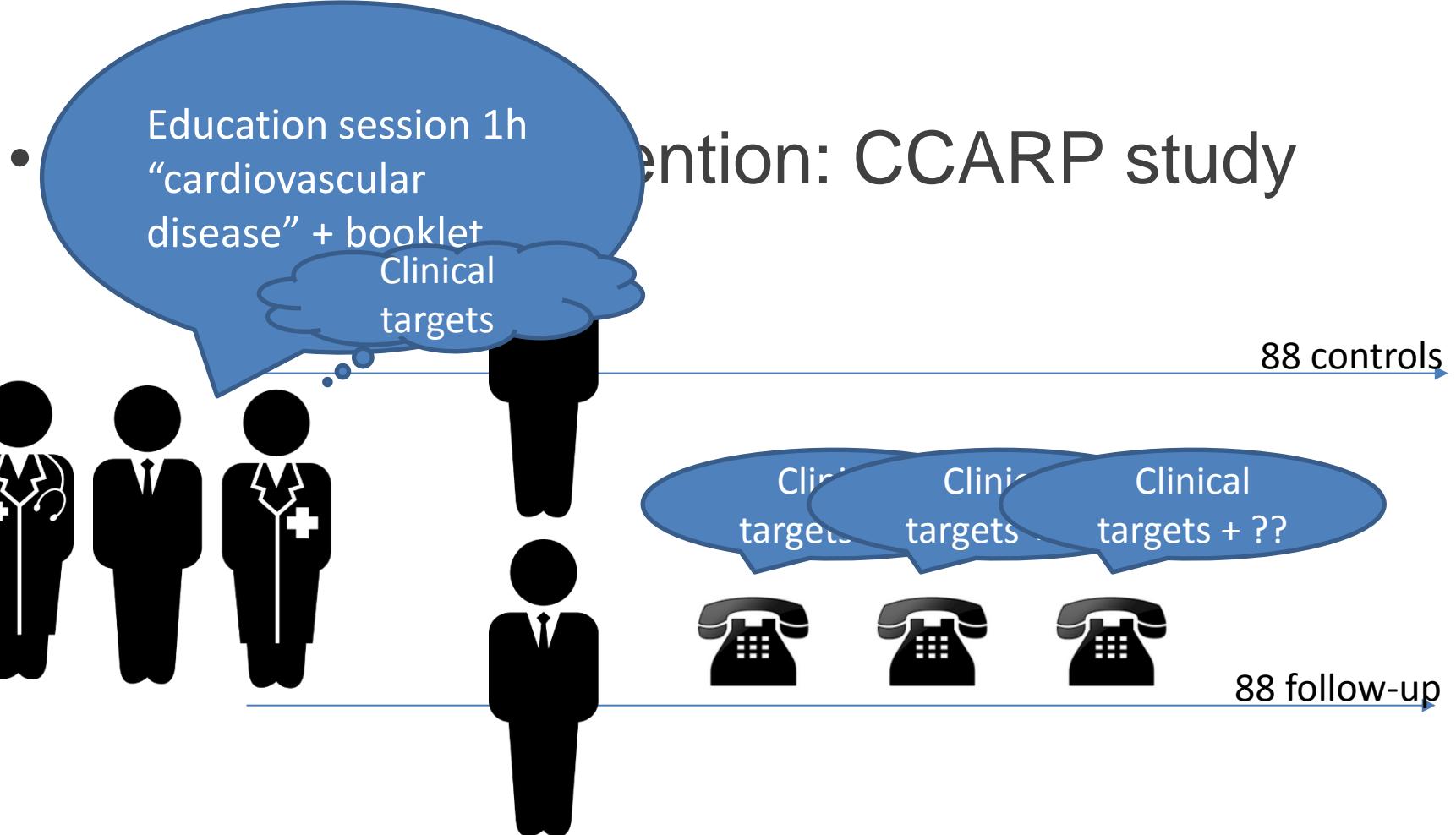


- the challenge of treatment in AF

- ✓ anticoagulation
- ✓ rate control
- ✓ rythm control
- ✓ ...
- ✓ ...

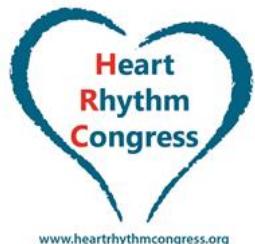
POLYPHARMACY





Evans 2010

*Pharmacotherapy*



- results after 6 months n.s.

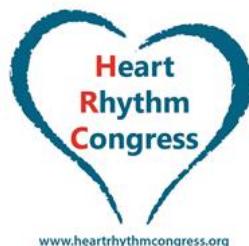
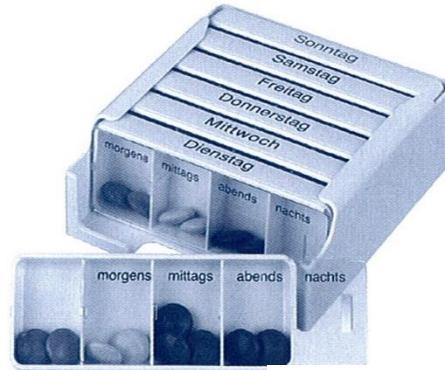
Characteristic	Follow-up Group (n=88)	Single-Contact Group (n=88)	p Value <sup>a</sup>
Framingham risk score (% 10-yr risk)	14.0	13.7	0.844
Proportional change from baseline (%)	-2.68	-1.25	
Blood pressure (mm Hg)			
Systolic	133.3	135.3	0.304
Diastolic	76.6	77.1	0.704
Lipid profile			
TC (mg/dl)	163.19	91.8	0.949
LDL (mg/dl)	90.1	(85.3–98.2)	0.992
HDL (mg/dl)	90.4	43.70	0.544
TC:HDL ratio	(83.9–97.0)	3.90	0.614
Triglycerides	169.17	172.71	0.835
HbA <sub>1c</sub> (%)	7.2	6.9	0.150
Adherence (%)	(n=54)	(n=58)	
In study	394	390	0.695

Data are mean values.

TC = total cholesterol; LDL = low-density lipoprotein cholesterol; HDL = high-density lipoprotein cholesterol.

<sup>a</sup>Comparison between follow-up and single-contact groups by using independent t test.

- drug reminder packagings



- patient characteristics

### modifiable

knowledge about illness

lifestyle

pill burden

...



### unmodifiable

ethnicity and culture

level of education

age

...

- 42 characteristics and 103 interventions

1. Knowledge

2. Skills

3. Social/professional role  
and identity

4. Beliefs about capabilities

5. Beliefs about consequences

6. Intentions

7. Memory, attention  
and decision process

8. Environmental process  
and resources

9. Social influences

10. Emotions

11. Behavioral regulation

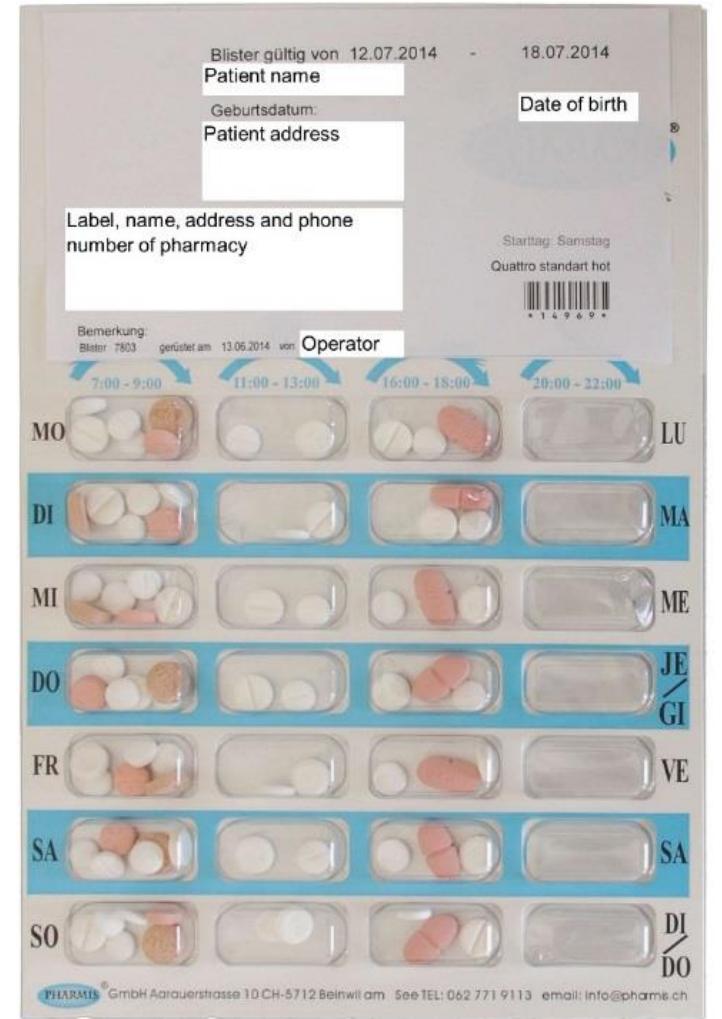
- knowledge

interventions	characteristics
give advice about treatment (benefits, goal, importance, correct use...)	knowledge about therapy and devices
give advice about illness (target disease, symptoms...)	knowledge about illness
educate patients (provide information; provide instruction)	

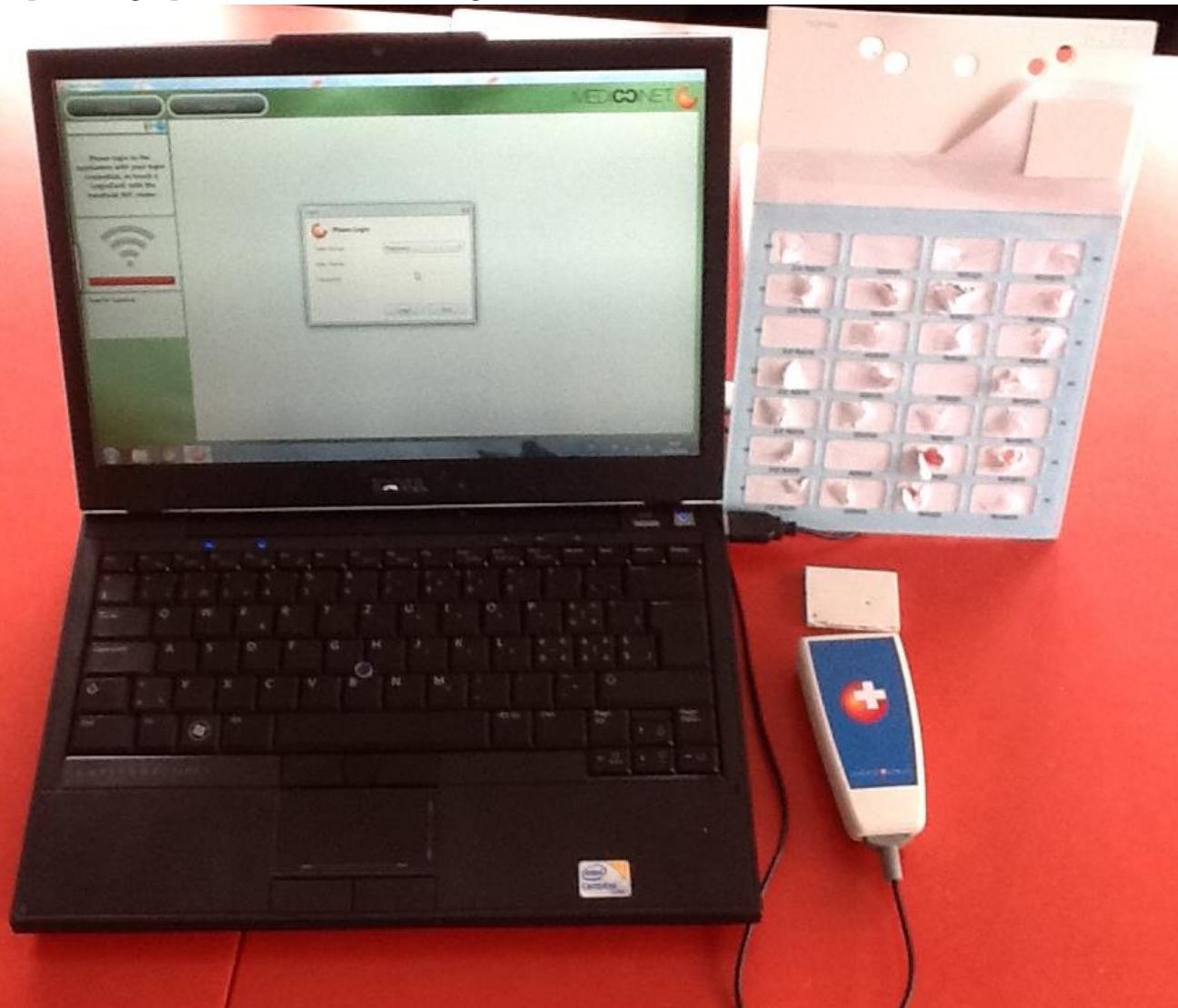


- multidrug punch card

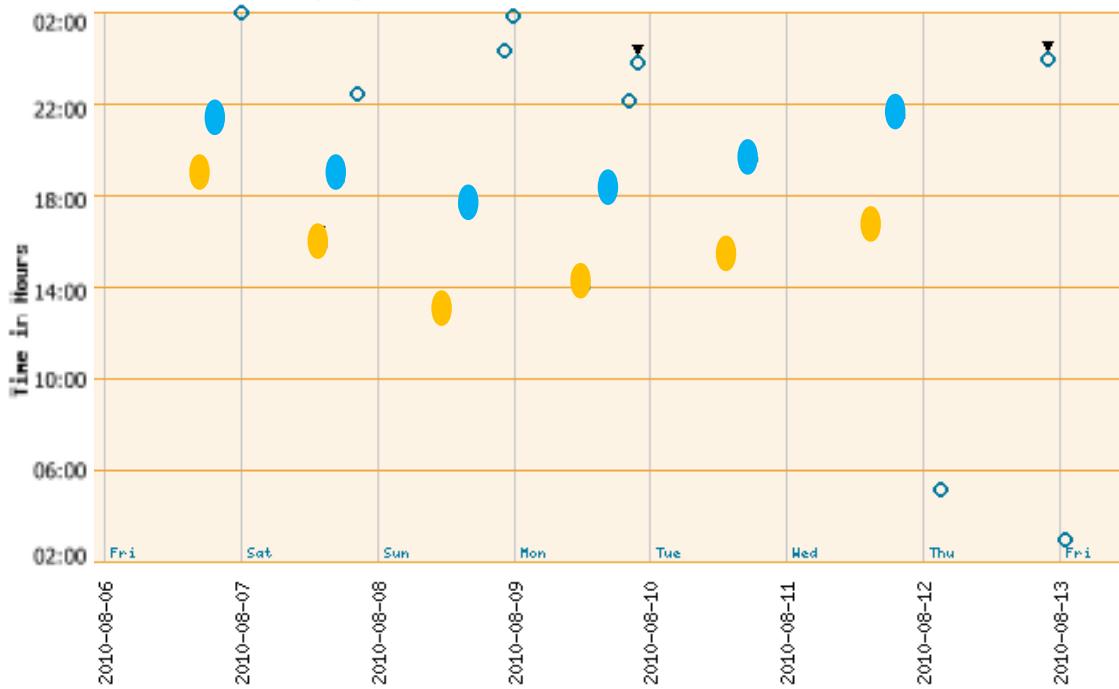
- ✓ simple
- ✓ cheap
- ✓ safe
- ✓ easy to use
- ✓ guarantees continuous care
- ✓ visual reminder and controller



- polypharmacy electronic monitoring POEMS



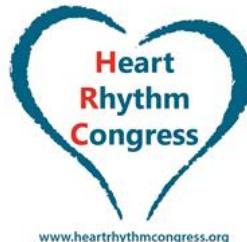
- electronic report



Dabigatran 110 mg	1	1	
Amiodaron 200 mg*	1		
Rosuvastatin 20 mg			1
Levothyroxin 0.1 mg	1		
Bilastin 20 mg	1		
Paroxetin 20 mg	1		
Zolpidem 10 mg			2

\* not SAT and SUN

- conclusions to optimize adherence
1. Target modifiable patient characteristics
  2. Tailor to unmodifiable ones
  3. E-monitor the behavior of intake
  4. Analyse and redefine the intervention
  5. Da capo...



# Many thanks for your attention



« L'attention est la forme la plus rare et la plus pure de la générosité... »

Simone Weil, 1942